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ALPHABET SOUP

FQPA, FIFRA, 2(ee), 24(c), S18, 25(b), TRAC, SAP, PDP, ETC.

An EPA Region 4 pesticides information update to inform regulators, organizations, and the interested public about the Food Quality Protection Act (FQPA), sustainable agriculture projects, and FIFRA registration actions and policy. Editor: Lora Lee Schroeder, Life Scientist
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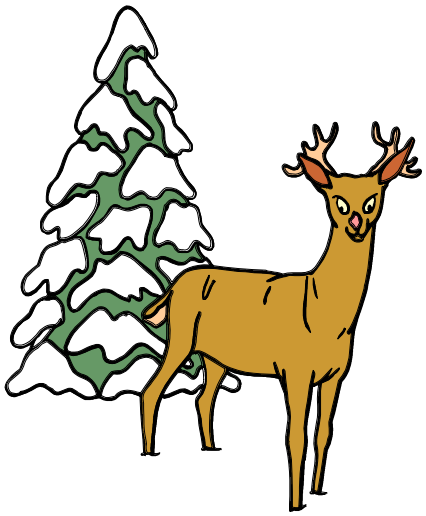
Christmas Tree Integrated Pest Management Program Reduces Pesticide and Fertilizer Use

By using Integrated Pest Management (IPM), many Western North Carolina (NC) Christmas tree growers are now able to maintain economic solvency, even though their total production may be small. Less use of pesticides, coupled with improved environmental awareness results in less likelihood that waterways will be contaminated. By preserving desirable natural plant cover, weed competition is reduced, erosion is minimized and wildlife habitat is maintained or even improved. Additionally, growers who are able to find more economic solutions to pest control can stay on the land where their forefathers resided and live in an area they so much enjoy.

The NC Christmas Tree IPM program is the result of the work of Dr. Jill Sidebottom, NC Extension Specialist. In a three year time period, Dr. Jill Sidebottom visited over 400 individual farms to evaluate grower problems and management alternatives with both the owners and County Extension personnel.

According to one Avery County Grower, "I've cut my fertilizer bill by a third and my chemical bill almost in half." And, chemical dealers confirm this trend with one dealer reporting,



"In the past several years, our sales of Atrazine herbicide is down by almost two-thirds."

Scouting is key to Fraser fir IPM. Through scouting growers learn what pests are present in sufficient numbers to cause economic loss and therefore require a pesticide application. While Christmas trees during the year of sale cannot tolerate much pest damage, younger trees can sustain damage from spider mites or twig aphids with minimal loss in growth or market value, according to Dr. Sidebottom. Most scouting is focused on the spruce spider mite (*Oligonychus ununguis*) . Other insect pests of Fraser fir are the balsam woolly adelgid (*Adelges piceae*), the balsam twig aphid (*Mindarus abietinus*), rosette bud mites (*Trisetacus fraseri*), hemlock rust mites (*Nalepella tsugifoliae*), white grubs (*Phyllophaga* and *Polyphylla* spp.), and *Cinara* aphids.

The only serious disease of Fraser fir Christmas trees in Western NC is *Phytophthora* root rot which is caused by a soil-borne fungus, *Phytophthora cinnamomi*.

Weed control consists of elimination of undesirable species and establishment of ground covers which

comprise a mix of native flowering weeds and grasses. Examples are chickweed, cinquefoil, dandelion, creeping buttercup, clover, groundsels, wild mints, nimblewill, strawberry, red sorrel, plantains, violets and other low stature, low competitive species.

One significant aspect of the Christmas Tree IPM program has been its adoption by growers in several parts of North Carolina. Initially, the program was focused on 50 growers in Avery County, but through the success of that pilot effort, several other counties have adopted similar activities. The Avery County model was so successful that the Avery County governmental leadership now supports an IPM technician on a full-time basis.

Dr. Jill Sidebottom, N.C. State University

In addition to developing an IPM Christmas Tree program, Dr. Sidebottom is working with growers who wish to grow organic Christmas trees. One of the objectives of this program was to learn which ground cover crops were best at promoting beneficial insects. Her results have indicated that red clover and false dandelions are best for these beneficials.

Dr. Sidebottom's efforts have not been limited to North Carolina. She has published her results in the "American Christmas Tree Journal", a national publication. In 1997, she was invited to present an IPM discussion at a true fir conference in Michigan and in 1998 was invited to give a presentation at the National Christmas Tree Convention. In 1999 she delivered a paper at the International Christmas Tree Meeting in Nova Scotia.

Dr. Sidebottom has been recognized in Region 4 by the EPA Pesticide Stewardship Committee with a Certificate of Merit in recognition of her nomination by the North Carolina Department of Agriculture and Consumer Services.

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WEB SITES WITH PESTICIDE SAFETY INFORMATION

Pesticide Safety for Health Care Providers: (an EPA site):
http://www.epa.gov/pesticides/safety

Maine Board of Pesticides Control (links to many pesticide toxicity/safety sites and sources of pesticide label information):
http://www.state.me.us/agriculture/pesticides/neghlink.htm#11

National Pesticide Telecommunications Network (Oregon State University)*:
http://ace.orst.edu/info/nptn/

SC Agromedicine Program:
http://www.musc.edu/oem/ageneral.html

State of New York Department of Health
http://www.health.state.ny.us

Children's Environmental Health Network: **http://www.cehn.org**

National Institute of Environmental Health Sciences:
http://www.niehs.nih.gov

U.S. National Library of Medicine*:
http://www.nlm.nih.gov/

UC Davis Agricultural Health & Safety Center*:
http://agcenter.ucdavis.edu/agcenter

American Academy of Allergy Asthma & Immunology site*:
http://www.aaaai.org/

National Ag Safety Database*:
http://www.cdc.gov/niosh/nasdhome.html

EXTOXNET Extension Toxicology Network*:
http://ace.ace.orst.edu/info/extoxnet/

National Animal Poison Control Center*:
http://www.napcc.aspca.org/

U.S.D.A. A.R.S. Pesticide Properties Database*:
http://wizard.arsusda.gov/rsml/ppdb.html

(Web sites listed are not specifically recommended by EPA but may contain information of interest to health care providers and others interested in pesticide safety and toxicity issues.)

*indicates link from Maine Board of Pesticides Control site.

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Health Care Providers Discuss Agromedicine

Health care providers representing the majority of the eight Region 4 states attended an Agromedicine Meeting in Atlanta, Georgia on December 1, 1999, at the invitation of the EPA Region 4 Pesticide Stewardship Committee. The meeting was well attended with approximately 30 persons participating. Speakers were Ms. Judy Hartley of the Georgia Department of Human Resources, Georgia Healthy Farmer Program; Ameesha Mehta, EPA Headquarters, Field & External Affairs; Dr. Stan Schuman of the Medical University of South Carolina, Agromedicine Program and Dr. Howard Frumkin of Emory University, the Rollins School of Public Health. Two student interns from Emory University, Ebonique Brown and Mary Abrams, currently working at Region 4 in the Children's Health Program, also participated in the meeting.

The primary focus of the meeting was the education of health care providers with respect to pesticides. Copies of the EPA publications *Pesticides and National Strategies for Health Care Providers: Workshop Proceedings, April 23-24, 1998* and The Recognition and Management of Pesticide Poisonings were provided to all health care providers attending the meeting. One resource shared at the meeting was a new publication by Dr. Stan Schuman titled User's Guide to Agromedicine which can be obtained by calling 930-643-7500. The guide provides a model for developing an agromedicine program including costs. Another resource shared at the meeting was Clemson University's Pesticide web site at:
http://entweb.clemson.edu/pestcid/
which provides basic pesticide information including material safety data sheets and chemical fact sheets.

Participants raised a number of important public health issues among them being the need for more information about the chronic health effects of pesticides, better record keeping of pesticide poisoning incidents and sharing of data, more resources for migrant health clinics and other agencies providing services to farm workers, improved networking among impacted agencies, an agromedicine web site with available resources, affordable/reliable screening tools for diagnosis and an education curriculum for teaching graduate students about pesticides.

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GAO Releases Report on Study of Pesticide Use in Schools

The General Accounting Office (GAO), the investigative arm of Congress, recently released a report from its study of pesticide use in schools. The GAO study was completed at the end of November 1999, and was made public on January 4, 2000, during a formal press conference by Senator Joseph Lieberman, the Connecticut Democrat who asked the GAO to conduct the study.

The GAO study found there is no comprehensive, readily-available national or state-by-state data on the amount and kinds of pesticides being used in schools today, and there is little information available about illnesses related to pesticide exposure in schools.

EPA officials indicated they were aware of the problems raised in the report and were already collecting data and taking steps to address the concerns. Marcia Mulkey, Director of the EPA's Office of Pesticide Programs, noted in her written response to the GAO Report that all pesticides must be thoroughly tested for their possible risks to children and infants before they are approved for the market. She went on to say that "it is vitally important to call attention to potential risks from pesticides in schools and in all other places where children may be exposed" and that EPA would consider all recommendations by the GAO and Senator Lieberman.

The EPA encourages integrated pest management (IPM) as a proactive means of reducing pest problems in school buildings and on school grounds without heavy reliance on chemical pesticides. IPM is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as pest monitoring, biological control, habitat manipulation, and judicious use of the least toxic pesticides necessary to resolve the pest problems.

Region 4 Actively Supporting IPM in Schools

EPA Region 4 is involved in projects which promote wider acceptance and implementation of IPM in schools. The Region 4 Pesticides Section worked in partnership with the Florida Department of Agriculture and Consumer Services, the University of Florida and EPA Headquarters to develop a World Wide Web site dedicated to "IPM in Schools" information.

The Web Site is nationally recognized as an excellent resource for school IPM related information, and a list server is maintained for individuals to exchange information on school IPM via email. The Web site address is:

http://www.ifas.ufl.edu/~schoolipm/

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FQPA Affects Section 18 Emergency Exemptions

The impact of the Food Quality Protection Act on the Section 18 emergency exemption process was discussed at a recent symposium at the Entomological Society of America National meeting held in Atlanta, Georgia on December 14, 1999.

EPA representatives, Meredith Laws of EPA HQ and Lora Lee Schroeder, EPA, Region 4, emphasized that Section 18 emergency exemptions are only appropriate for urgent non-routine situations that require the use of a pesticide. Examples given of an urgent non-routine situation were significant economic loss due to pest resistance, a new pest, unusual weather conditions or cancellation of a pesticide traditionally relied upon for economic pest control.

Other non-routine situations were discussed by participants such as issuance of emergency exemptions for resistance management and for reduced risk, however Section 18 does not currently allow approval solely for these situations, according to Meredith Laws.

EPA PROPOSES NEW RULE FOR ESTABLISHING TOLERANCES FOR EMERGENCY EXEMPTIONS

In a June 3, 1999 Federal Register Notice (http://www.epa.gov/fedrgstr) EPA proposed a new rule for establishing tolerances for pesticide emergency exemptions. In Section VIII of the proposed rule EPA describes additional Section 18 concerns. Among these are recommendations made by the Association of American Pesticide Control Officials (AAPCO) and the National Association of State Departments of Agriculture (NASDA). The preamble to the proposed rule is an excellent Section 18 reference piece for both those familiar and unfamiliar with Section 18 emergency exemptions.

Inappropriate Section 18 rationales mentioned were: 1) improving yields over what would normally be expected, 2) providing a more convenient method of pest control, 3) enhancing profitability, and 4) getting a new active ingredient on the market quicker than through usual channels.

Participants learned that FQPA requires the establishment of a time-limited tolerance for pesticides allowed under the exemptions before the first harvest date. Time-limited tolerances established under Section 18s also apply to the same crop when imported from outside the United States.

Section 18s also are subject the safety standard established by FQPA in 1996 which provides additional protections for infants and children. Since passage of FQPA, EPA must consider not only dietary sources of a pesticide but also non-dietary sources such as drinking water and other non-occupational sources (pest control treatments in and around the home).

Participants were also reminded that a crisis exemption which authorizes immediate use of a pesticide cannot be issued for a first-time food use or a new active ingredient .

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National Environmental Stewardship Awards Announced

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EPA's Pesticide Environmental Stewardship Program (PESP), a voluntary program aimed at reducing pesticide risks, celebrated its fifth anniversary in November. To mark this anniversary, the Agency acknowledged the accomplishments of its partners in the areas of technological advances, use of safer alternatives, implementation of integrated pest management strategies and educational programs that advance risk reduction.

PESP presented Excellence Awards to the following 10 members:

American Electric Power Service Corp

American Mosquito Control Association

Campbell Soup Co.

City of Davis Calif., Parks and Recreation
Division

Gemplers Inc.

Gerber Products Company

Lodi-Woodbridge Winegrape Commission

Monroe County Community School Corp.

National Potato Council

Steritech, Inc.

More information on the PESP program and award recipients can be found at: **http://www.pesp.org.**

Note: For a list of PESP partners in Region 4 see the August 1999 edition of *Alphabet Soup.*

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EPA HEADQUARTERS:

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Azinphos Methyl Risk Management Decision

EPA has accepted voluntary measures to reduce both dietary and worker risks from azinphos methyl, an organophosphate insecticide used on a wide variety of fruits and vegetables.

These voluntary measures were necessary because, as it is currently registered, azinphos methyl poses an unacceptable dietary risk to children ages one to six years. It also poses risks of concern to agricultural workers.

As of December 31, 1999, sale or distribution of azinphos methyl that has not been relabeled is not allowed. Existing stocks of azinphos methyl already in the possession of growers may be used until depleted provided the use is in accordance with the existing label or the August 2, 1999, agreement. For a list of affected products consult the December 3, 1999, Federal Register notice.

Summary of Risk Reduction Measures for Azinphos Methyl

Reduce Use on Pome Fruit (Apples, Pears, Quinces and Crabapples): Establish a maximum seasonal use rate and increase the time between application and harvest. Lower the tolerance for pome fruit from 2.0 ppm to 1.5 ppm now and to 1.0 ppm in 2001unless residue data demonstrate that such a tolerance for pome fruits cannot be achieved.

Cancel Use on Cotton East of the Mississippi River and all Sugarcane Use:

These uses appear to be a major factor contributing to drinking water exposure. The registrants also have committed to ground and surface water monitoring programs in sensitive areas. (The registrant must demonstrate with comparative residue data that these measures achieve the expected reductions in exposure or additional actions will be taken.)

Cancel Ornamental, Christmas Tree, Forest Tree, and Shade Tree Uses:

These cancellations will reduce exposure to affected ecosystems.

Cap Production of Product Available in the U.S.:

The cap is intended to prevent use of other pesticides shifting to azinphos methyl as a result of other actions, such as the cancellation of many uses of methyl parathion.

Reduce Worker Exposure:

Increase the length of time that workers must wait before entering a treated field or orchard. All application with hand-held equipment is prohibited. Closed mixing/loading systems and enclosed cabs are required, as is additional worker exposure testing.

Organic Workshop

You are invited to participate in a workshop series entitled: Building Capacity in Organic Agriculture: A Training Program for Agents and Educators in Georgia. The workshops are designed for those working with existing and future farmers and gardeners. Four intensive workshops will be held the second Thursday of February through May from 9:00 AM to 3:00 PM in north Georgia. A separate series will be offered in both central and south Georgia in 2001. University and grower expertise will be included, as well as on-farm demonstrations. As the content of each workshop is interconnected, participants register for the workshop series.

Registration brochures are available

from Deirdre Birmingham, Project Coordinator, at:
deirdreb@mindspring.com
or 770-993-9651, or via the Georgia Organics website of:
www.georgiaorganics.org.
You are encouraged to register by January 28. The first workshop is February 9 at the Oconee County Civic Center. Refreshments and registration open at 8:15 AM. A modest registration fee is requested to help pay for a resource manual, facilities, and lunch and refreshments for all four workshops.

The workshop series is organized by Georgia Organics, Inc., formerly known as the Georgia Land Stewardship Association, Inc. Others collaborating in the program are the University of Georgia Cooperative Extension Service, Fort Valley State University, North Carolina State University, the Georgia Master Gardeners Association, and Georgia Grown Cooperative, Inc. Funding is provided by a grant from the USDA Sustainable Agriculture Research and Education (SARE) Professional Development Program (PDP).

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COMMENTS BY THE EDITOR

To view an electronic version of *Alphabet Soup* visit the Region 4 web site at:
http:www.epa.gov/region4/air/pesticides/newslett.htm

Readers are encouraged to submit comments and suggestions for improving the newsletter. To submit comments or information for *Alphabet Soup* please contact:

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